# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/848,713 | 05/03/2001 | Doug Grumann | 10002681-1 | 7924 |

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|---|---|
| 7590     09/21/2004 | EXAMINER |
| HEWLETT-PACKARD COMPANY | REID, CHERYL M |
| Intellectual Property Administration | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2142 | |

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DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/848,713 | ·GRUMANN ET AL. |
| | Examiner | Art Unit | |
| | Cheryl M. Reid | 2142 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

## A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☐ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 May 2001* is/are a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1.      Claim 12 is objected to because of the following informalities: Claim 12 states that "wherein the data collection engine collects external performance information from one or more of the one or more external information" Examiner is assuming that applicant intended to say "one or more external component". Claim 12 is thus examined using this assumption    Appropriate correction is required.

2.      Claim 14 is objected to because of the following informalities: Claim 14 is stated to depend on "the apparatus of claim 1". Claim 1 claims a method. Examiner is assuming that applicant intended for Claim 14 to dependent on Claim 11 that claims an apparatus. Claim 14 is thus examined using this assumption.    Appropriate correction is required.

3.      Claim 20 is objected to because of the following informalities: Applicant writes of "first interval" and "second interval". Examiner is unclear in terms of what interval applicant is referring to. Examiner is assuming that in-terms of "first interval" and "second interval", applicant means "first time interval" and "second time interval" because "time interval" is discussed in the specifications and this terminology is also

used in other claims. Claim 20 is thus examined using this assumption. Appropriate

correction is required.

### Claim Rejections - 35 USC § 102

4.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

5.    Claims 1,3, 4, 5-6,8, 11 and 14 are rejected under 35 U.S.C. 102(e) as being

anticipated by Liang.

### Claim 1

6.    Liang teaches of a method for collecting service performance information from

the service (Col 5, lines 16-19); and translating the collected service performance

information into a generic output (Col 5, lines 43-45, Fig 1A, Fig 2). The fact that data is

transmitted from data network (100) to monitoring server (114) and sever (114) can

conclude a status condition of the registered servers (Col 5, lines 31-33), implies that

the collected service performance was translated into a generic output.

### Claim 3

7. Liang teaches that the generic output comprises one of a scriptable interface and an

application-programming interface (Fig 4).

### Claim 4

8. Liang teaches of concluding the status condition of servers based on a set of

criteria ( Col 5, lines 31-33) . It is inherent that in order to conclude the status condition

of servers ,accessing the generic output to read the health of the service is required.

### Claim 5

9. Liang teaches of concluding the status condition of servers based on a set of

criteria ( Col 5, lines 31-33) . In order to conclude the status condition of servers , it is

inherent that the collecting step must comprise reading performance information

provided by the service.

### Claim 6

10. Liang teaches deriving(provokes) performance information from the service (Col 5,

lines 9-13).

## Claim 8

11. Liang teaches of concluding a status condition respectively for each of the registered servers (Col 5, lines 32-33). It is inherent that in order to conclude the status, a probe program was used to read the performance information. Probe is defined as any device design to investigate and obtain information. Examiner is using this definition because it offers the broadest reason of interpretation.

## Claim 11

12. Liang teaches of a data collection engine that collects service health information (Col 5, lines 16-19); and a translation engine that translates the collected service health information using a health generation algorithm (Col 5, lines 43-45) and provides one or more generic health metrics (status condition) (Col 5, lines 31-32). Examiner is interpreting health metrics as anything that relates or informs about the status or state of a system or component because this definition gives the broadest reason of interpretation. Microsoft computer dictionary defines engine as a processor or portion of a program that determines how the program manages or manipulates data. It is obvious to one skill in the art that an engine is used in Liang's invention to collect service health information and translates the collected service health information. Liang is silent in regards to teach about using a "health generation algorithm" to translate the

service health information.  However, it is inherent  that he did use an algorithm to

translate the collected service health information (Col 5, lines 43-45).  Examiner is

interpretation service health algorithm as any algorithm  that is used in relation to

generating or obtaining service heath because this definition gives the broadest reason

of interpretation.

### Claim 14

13.  Liang teaches of an apparatus wherein the data collection engine, comprises: a

data query module that reads performance information from the service (downloads one

or more applications. (Col 5, lines 10-13, 16-17) and that derives performance

information from the service (provokes the hardware or application itself (Col 5, lines 9-

10)).

14.  Claim 18, 19, 21, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated

by Helsper.

### Claim 18

15.  Helsper teaches about collecting service performance information from the service

and collecting external performance information from components of the host machine (

Paragraph [0010], lines 2-4); translating the collected service and external performance

information according to a health generation algorithm to generate a generic service

health output ( Paragraph [0008, lines 14-16, Paragraph [0011], lines 1-4) and

providing the generic service health output as an output file accessible by performance monitoring tools (Paragraph [0012], lines 9-10).

### Claim 19

16. Helsper teaches about reading first external performance parameters (Paragraph [0015], lines 1-3) and deriving second external performance parameters (Paragraph [0011], lines 1-4). Helsper teaches about reading first service performance parameters (Paragraph [0010], lines 2-4) and deriving second service performance parameters (Paragraph [0011], lines 1-4).

### Claim 21

17. Helsper teaches about collection module that receives performance information related to the service (Paragraph [0013, lines 3-6); a translation module that applies a rule set to the received performance information and derives generic health metrics therefrom (Paragraph [0011, lines 1-4). It should be noted that although Helsper didn't explicitly state that rules were used in the regression analysis, this is inhere rent. Helsper also teaches about an output module that outputs the generic health metrics (Paragraph 0012, lines 9-10).

### Claim 22

18. Helsper teaches that the collection module receives external performance information from one or more external services coupled to the host computer and receives internal performance information related to operation of the service on the host

computer(Paragraph [0008], lines 15-16, Paragraph [0015], lines 1-2, and Paragraph

[0010], lines 2-4).

## Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 2, 9, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Liang as applied to claim 1 above, and further in view of Helsper.

### Claim 2

21. Liang is silent in respect to collecting external performance information from one

or more of the one or more components; translating the collected external performance

information; and combining the translated external performance information and the

translated service information to provide the generic output. Helsper teaches about

collecting external performance information from one or more of the one or more

components (Paragraph [0015], lines 1-3) and translating the collected external

performance information(Paragraph [0011], lines 1-3). Helsper teaches about

combining the translated external performance information and the translated service

information to provide the generic output (Paragraph [0010], lines 2-4). It is an objective

of Helsper's invention to allow e-businesses to provide their customers with reliable

service (Paragraph [0003], lines 2-4). It is an objective of Liang's invention to provide a

healthy network system (reliable service) (Col 2, lines 55-56). Using both external and

internal performance data to monitor or determine the health of a network would result

in a more reliable (healthy) network because information about all the factors that affect

the network would be available. It is for this reason that one with ordinary skill in the art

would modify Liang's invention to use both internal and external performance data.

### Claim 9

22. Liang teaches that the collected service information relates to a plurality of

performance metrics (Col 5, lines 20-22) and the generic output comprising a plurality of

service health metrics( Col 5, lines 31-37). Although, Liang doesn't explicitly state that

notifying the owner involves providing a generic output that contains health metrics

(status condition), this is inherent. Liang is silent in regards to the translating step

comprising combining one or more of the plurality of performance metrics to provide one

or more of the plurality of service health metrics. Helsper teaches about the translating

step comprises combining one or more of the plurality of performance metrics to provide

one or more of the plurality of service health metrics (performance levels etc.)

(Paragraph [0010], lines 2-4, Paragraph [0011], lines 1-4) and the generic output

comprises a plurality of service health metrics (Paragraph [0011], lines 1-4, Paragraph

[0012]). It should be noted that examiner is interpreting performance metrics as

information that is obtained relating to the performance of a system (intrinsic and extrinsic variables) because this gives the broadest reason of interpretation. It is an objective of Helsper's invention to allow e-businesses to provide their customers with reliable service (Paragraph [0003], lines 2-4). It is an objective of Liang's invention to provide a healthy network system (reliable service) (Col 2, lines 55-56). Combining performance metrics to get health metrics gives a better understanding of the overall performance of a system. Modifying Liang's invention by adding this feature would allow him to more efficiently provide a healthy network. It is for this reason that one with ordinary skill in the art would make this modification to Liang's invention.

### Claim 10

23. Liang teaches that one of health metrics (status) used in his invention is standard compliance (service level violations). Liang does not specify that the health metrics also include availability, capacity, throughput, service time, queue length, utilization, and user satisfaction. However, he does imply that the health metrics can include those parameters listed above (Col 5, lines 27-29).

### Claim 12

24. Liang teaches that the host machine comprises one or more external components (Fig 1A, 104 and 122). Liang is silent in regards to data collection engine collecting external performance information from one or more of the one or more external

component, and the translation engine translates the collected external information

using the health generation algorithm to provide the one or more generic health metrics.

Helsper teaches that the data collection engine collects external performance

information from one or more of the one or more external component (Paragraph

[0015], lines 1-3) and the translation engine translates the collected external

information using the health generation algorithm to provide the one or more generic

health metrics (performance levels) (Paragraph [0011], lines 1-4, Paragraph [0012].

Helsper does not explicitly state that he used a health generation algorithm but it is

inherent that he does for the same reasons given in Claim 11 above. One of ordinary

skill in the art would be motivated to incorporate this feature in Liang's invention for the

same reasons discussed in Claim 2 above.


### Claim 13

25. Liang teaches of a generic output wherein the generic output is one of an API and a

scriptable interface (Col 5, lines 43-45). Liang teaches about generic output comprising

generic health metrics (Col 5, lines 31-37, Col 6, lines 47-52). Although, Liang doesn't

explicitly state that notifying the owner involves providing a generic output that contains

health metrics (status condition), this is inherent.


26. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Helper as

applied to claim18 above, and further in view of Ballantine.

### Claim 20

27.  Helsper teaches about collecting the service performance information on a first interval (Paragraph [0013], lines 3-4).   ).  Helsper is silent in regards to adjusting the first interval to provide the generic service health output at a second interval   Ballantine teaches about providing an output (Col 5, lines 20-21, Col 9, lines 12-14).  Although, Ballantine didn't explicitly state that the output was at a different time interval (second time interval), this is implicitly implied because the health manager has to take time to process the input to obtain the output.  Adjust is defined as to change so as to match or fit.  Examiner is using this definition because it offers the broadest reason of interpretation.  Examiner is interpreting "adjusting the first time interval" to mean changing the "first time interval" which can be accomplished by adding more time to the "first time interval" to obtain the "second time interval."   It is an objective of Ballantine's invention to anticipate unacceptable network performance  and propose appropriate and efficient solutions(Col 1, lines 45-46).  It is an objective of Helsper to effectively forecast network performance (Paragraph [0007], lines 9-10).  Providing the output at a second time interval would be an overall improvement to Helsper's invention because it would allow his system to accurately analyze the input information and provide a feasibly solution in the output information.  It is  for this reason that one with ordinary skill in the art would make this modification to  Helsper's invention.

28.  Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Liang  as applied to claims 1, 6 and  14 above, and further in view of Chappelle.


### Claim 7

29.  Liang fails to teach about  using a wrapper program to read the performance

information.  Chappelle teaches about  using a wrapper program (performance

monitoring and graphing tool)  to read the performance information (Col 3, lines 29-32).

The examiner is interpreting wrapper program as any program that is used as an

interface program because this gives the broadest reason of interpretation.  In Liang's

invention the monitoring server (Fig. 1, 114), is connected to a data network (Fig.1,

100).  The data network, receives performance information from components 122 and

104 (Fig. 1).  It would be an improvement to Liang's invention if a wrapper program was

used to read the performance information because  the monitoring server would be able

to read the information supplied by components 122 and 104 regardless of the

components particular infrastructure.  It is for this reason that one skill in the art would

modify Liang's invention to use a wrapper program to read the performance information.


### Claim 15

30.  Liang teaches about the data derivation module deriving the performance

information from a probe program (Col 5, lines 9-10).  Examiner is interpreting a  probe

program as any program that is capable of requesting and obtaining information

because this gives the broadest reason of interpretation.  Liang  is silent in regards to

the data derivation module deriving the performance information from one or more of a wrapper program and a benchmark program. Chappelle teaches about the data derivation module deriving the performance information using a wrapper program (Col 3, lines 29-32) and a benchmark program (data collection script) (Col 3, line 10-11). One of ordinary skill in the art would be motivated to modify Liang's invention to use a wrapper program, a benchmark program, and a probe program for the reasons discussed in claim 7 above.

31. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liang as applied to claim 11 above, and further in view of Walrand (US 6647413 and High Performance Communication Networks, 2$^{nd}$ Edition (HPCN)).

## Claim 16

32. Liang fails to teach about weighting scheme that weights one or more performance information parameters; a summation scheme that combines one or more performance information parameters; and a averaging scheme that averages collected service health information for a service health metric. Walrand teaches about a summation scheme that combines one or more performance information parameters (Col 7, lines 32-33) and an averaging scheme that averages collected service health information for a service health metric (Col 7, lines 55-57). In HPCN Walrand teaches of a weighting scheme that allocates different level of importance to different parameters (P. 2). One objective of Walrand invention is to optimize the network performance (Col 2, lines 53-

54). It is an objective of Liang's invention to provide a healthy network system. Altering

Liang's invention to include the features discussed above that are present in Walrand's

invention would be an improvement to Liang's system. Adding these features to Liang's

system would allow him to focus on specific parameters (using the weighting scheme)

and give him information regarding the overall performance of the network system(

using the summation and averaging schemes). These added features would allow

Liang to provide a healthy network and more effectively predict failure of registered

computing devices (Col 2, lines 34-35, 54-54). It is for this reason that one with ordinary

skill in the art would make this modification to Liang's invention.

33. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liang as

applied to claim 11 above, and further in view of Ballantine.

**Claim 17**

34. Liang fails to teach about receiving the service health information at a first time

interval and providing an output having a second time interval different from the first

time interval. Ballantine teaches of receiving the service health information at a first

time interval (Col 4, lines 48-49, 60-61). Ballantine teaches about providing an output

(Col 5, lines 20-21, Col 9, lines 12-14). Although, Ballantine didn't explicitly state that

the output was at a different time interval (second time interval), this is implicitly implies

because the health manager has to take time to process the input to obtain the output.

It is an objective of Ballantine's invention to anticipate unacceptable network

performance and propose appropriate and efficient solutions (Col 1, lines 45-46). It is

also an objective of Liang's invention to predict a failure (Col 2, line 35) and provide

solutions (Col 1, line 60). Providing the output at a second time interval would be an

overall improvement to Liang's invention because it would allow his system to

accurately analyze the input information and provide a feasibly solution in the output

information. It is for this reason that one with ordinary skill in the art would make this

modification to Liang's invention.


Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cheryl M. Reid whose telephone number is 703 305-

0435. The examiner can normally be reached on Mon- Fri (7-4:30) 2nd &5th Fridays

off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jack Harvey can be reached on (703)305-9705. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

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cmr

JACK B. HARVEY
SUPERVISORY PATENT EXAMINER